## Portable Fuel Container (PFC) Regulation Amendments



Sacramento, CA February 18, 2016

California Environmental Protection Agency



## Need for Regulatory Action

- Low compliance rates for many PFCs
- Outdated certification fuel

Differing ARB and U.S. EPA certification testing requirements

## Background

- PFCs are used to refuel small off-road engines and other off-highway recreation vehicles
- Approximately 10 million PFCs in use in California
- A significant source of reactive organic gases (ROG)

Controls needed to meet air quality standards and

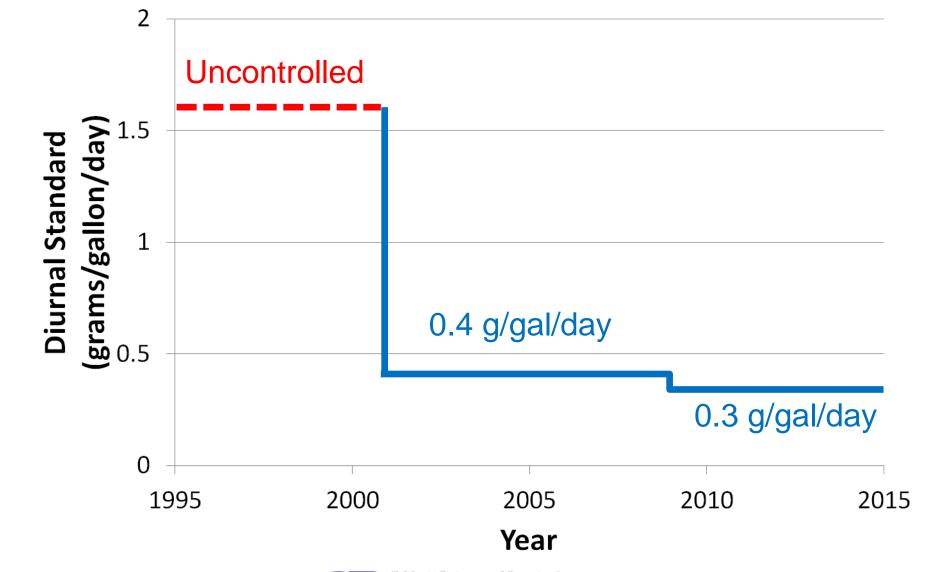




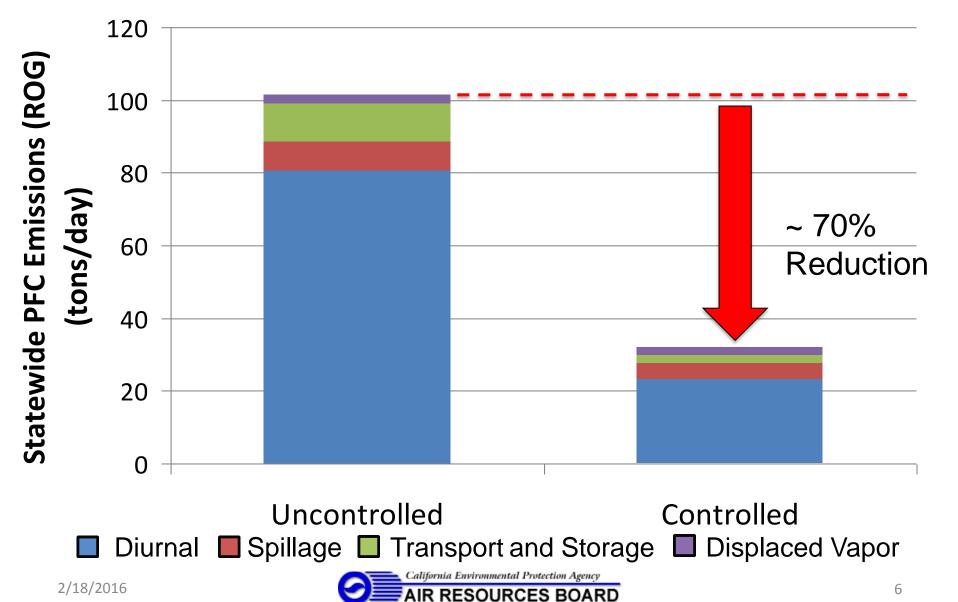
#### Sources of PFC Emissions



## Tighter ARB Standards Over Time



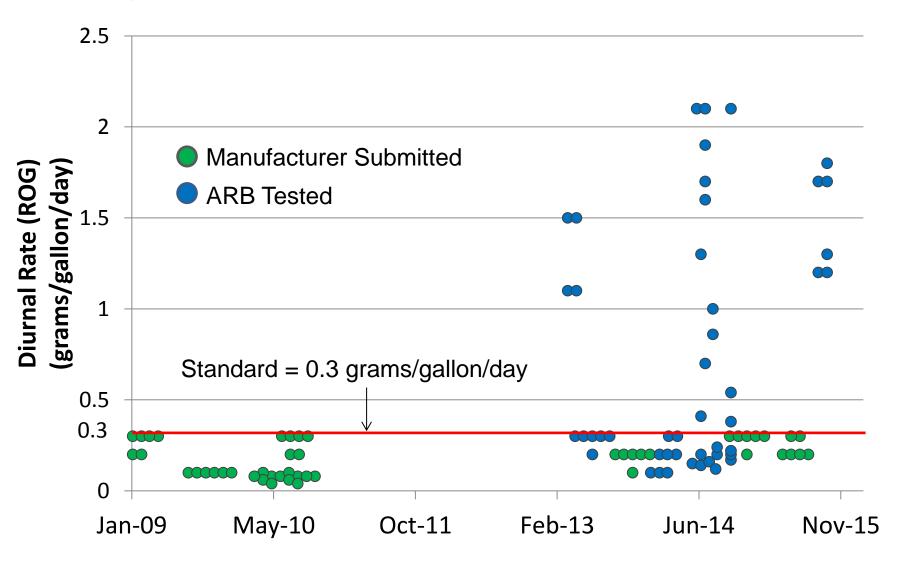
### Expected Benefit of ARB Regulation (2015)



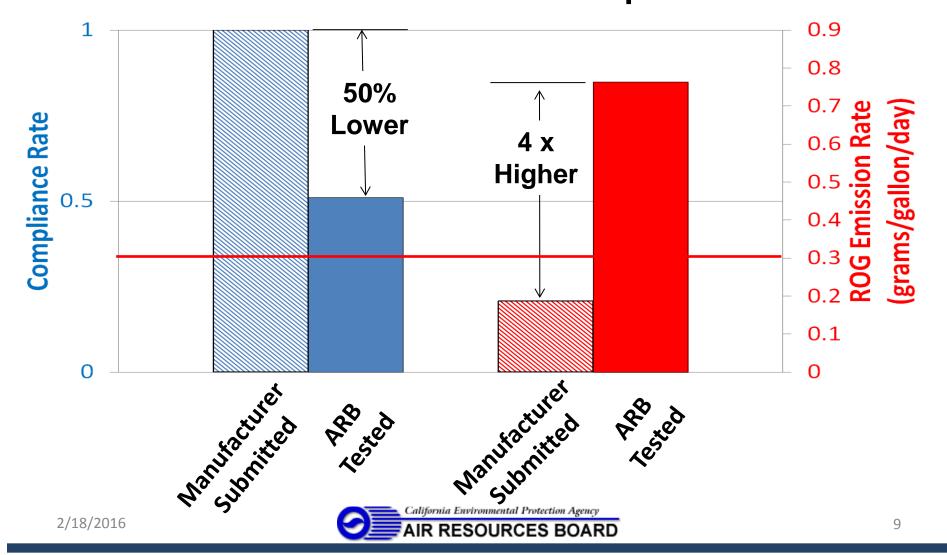
## Determining PFC Compliance



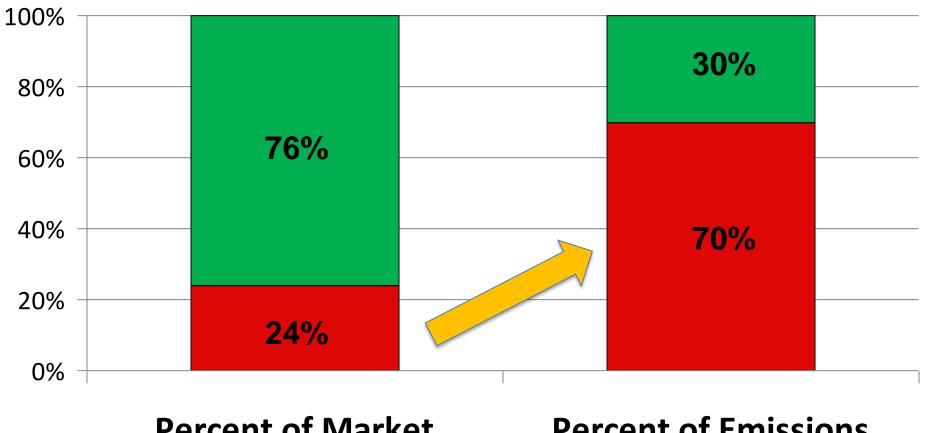
#### Questionable Manufacturer Data



## Lower Compliance and Higher Emissions Than Expected



## Noncompliant Manufacturers Have Disproportionate Impact on Emissions



**Percent of Market** 

**Percent of Emissions** 

Passing PFCs

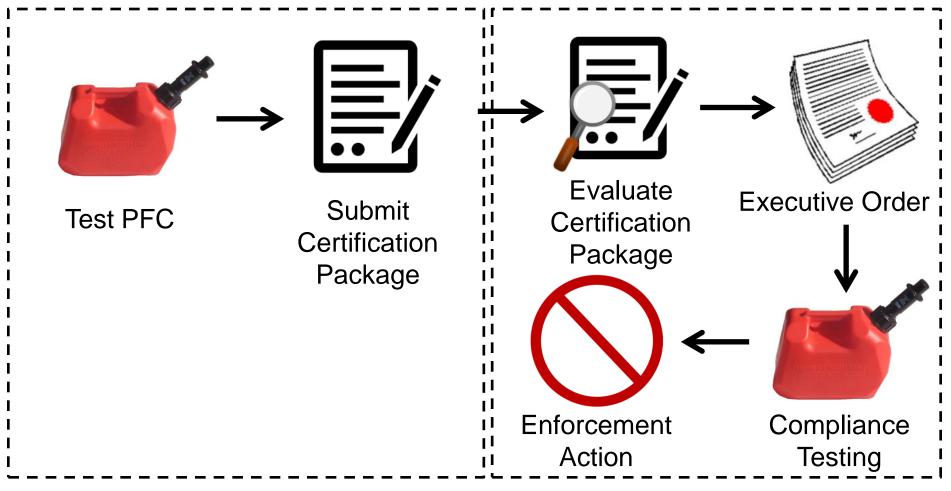


Failing PFCs

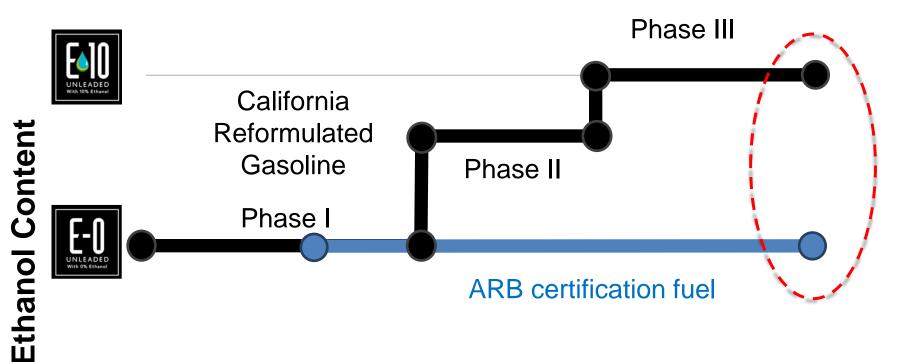


## Limited Options to Address Noncompliance

Manufacturer ARB



#### **Outdated Certification Fuel**







# Different ARB and U.S. EPA Certification Testing Requirements

- Requires separate tests for ARB and U.S. EPA
- Double the cost for manufacturers



- 3 PFC sample size
- 72°F-96°F-72°F temperature profile
- 10 percent ethanol and 9 RVP fuel
- Durability tests



- 6 PFC sample size
- 65°F-105°F-65°F temperature profile
- 0 percent ethanol and 7 RVP fuel
- No durability tests

#### Solutions To Issues Identified

- Actions Currently Underway
  - Interlaboratory comparison
  - Enforcement action
- Proposed Regulatory Amendments
  - Amend certification process
  - Require E-10 certification fuel
  - Provide optional certification testing process



## Interlaboratory Comparison

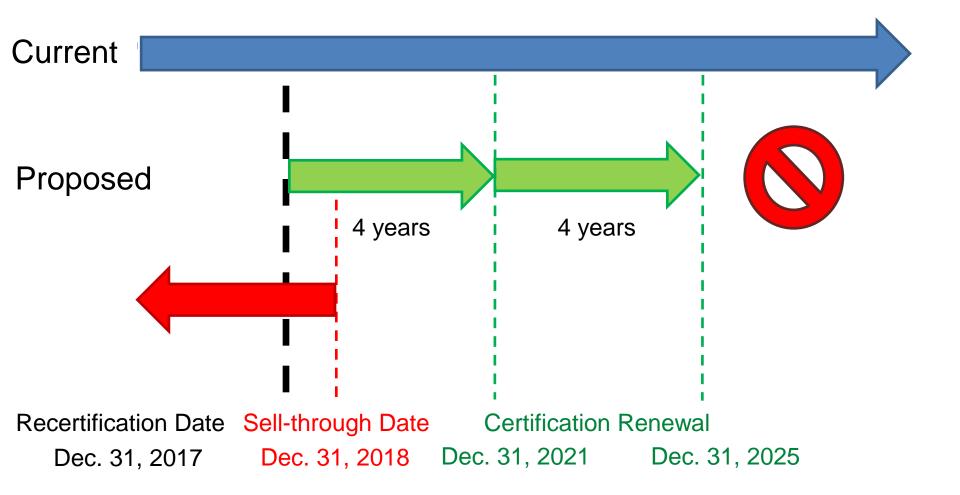
- Focused on understanding discrepancy between ARB and manufacturer test results
- Began in 2015 with manufacturer cooperation
- Comparison of ARB and largest independent testing laboratory
- PFCs from same manufacturing lot tested
- Preliminary results inconclusive
  - Additional testing planned



### Ongoing Enforcement Action

- Compliance testing at ARB laboratory
- Seven of eight manufacturers tested
  - Approximately 90 percent of the market
- Action taken against all known noncompliant manufacturers
- Additional compliance testing planned

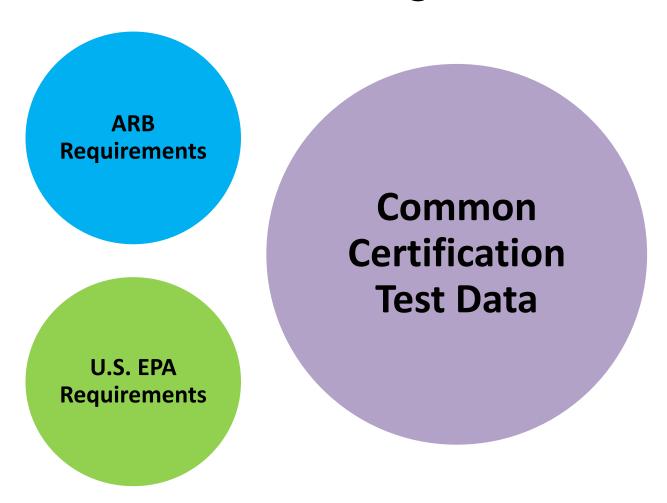
#### **Amend Certification Process**



## Require E-10 Certification Fuel

- Certification fuel will now be reflective of California pump fuel
- Harmonizes ARB certification fuel with U.S. EPA certification fuel
- Will require manufacturers to recertify existing containers to E-10
- Impact on compliant manufacturers will be minimal as their products typically comply with both E-0 and E-10

# Opportunity to Streamline Certification Testing Process



## Provide Optional Certification Testing Process

Existing

**Testing Pathways** 

Optional Streamlined



- 6 PFC sample size
- 65°F-105°F-65°F temperature profile
- 0 percent ethanol and 7 RVP fuel
- No durability tests



- 3 PFC sample size
- 72°F-96°F-72°F temperature profile
- 10 percent ethanol and 9 RVP fuel
- Durability tests



- 6 PFC sample size
- 65°F-105°F-65°F temperature profile
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#### Cost to Manufacturers

- Cost savings due to streamlining are offset by higher costs related to more frequent testing
- Maximum price increase = \$0.36/PFC (2015\$)
  - Based on stakeholder estimates
  - 100 percent retailer mark-up
- Less than 2% increase for a \$20 PFC
- Emissions benefits from increased compliance rates

## Collaborative Rulemaking Process

- Multiple workshops and meetings
- Coordinated with U.S. EPA
- Addressed stakeholder concerns



## Proposed 15-Day Changes

- Refinement of certification and test procedures
  - Certification testing
  - Manufacturer recordkeeping and reporting
  - Enforcement and penalties
- Also minor editorial changes
- Public process with opportunity for stakeholder comment

### Summary and Recommendation

- Amended certification process will improve compliance rates
- Fuel change will reflect currently dispensed gasoline
- Certification testing will be streamlined by aligning with U.S. EPA
- Proposal does not result in economic hardship
- Staff recommends adoption with 15-day changes